DOCUMENT RESUME

ED 375 345 CG 025 675

AUTHOR Fernan, Steven A.; And Others

TITLE Wisconsin Youth Risk Behaviors: 1993 Survey Results.

Bulletin No. 94305.

INSTITUTION Wisconsin State Dept. of Public Instruction, Madison.

Bureau for Pupil Services.

PUB DATE Mar 94

NOTE 56p.; Cover title reads: "1993 Wisconsin Youth Risk

Behavior Survey. Executive Summary and Report."

AVAILABLE FROM Bureau for Pupil Services, Wisconsin Dept. of Public

Instruction, 125 S. Webster Street, P.O. Box 7841,

Madison, WI 53707-7841.

PUB TYPE Tests/Evaluation Instruments (160) -- Reports -

Descriptive (141)

EDRS PRICE MF01/PC03 Plus Postage.

DESCRIPTORS Adolescents; Alcoholism; Children; Dietetics;

*Drinking; Drug Abuse; Drug Education; Eating Habits; Elementary Secondary Education; Health Education; *High Risk Students; *Injuries; School Counseling; School Counselors; Sexuality; Student Attitudes; *Student Behavior; *Substance Abuse; *Tobacco

IDENTIFIERS *Wisconsin

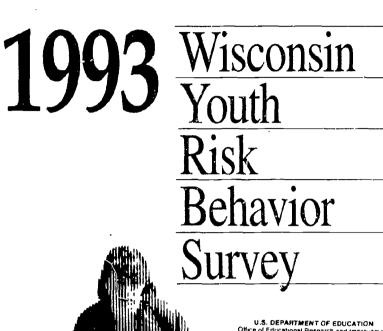
ABSTRACT

How can state leaders mobilize to meet the health and safety needs of its school-age children? To understand more about children's health, the Wisconsin Department of Public Instruction (DPI) has surveyed Wisconsin students. In 1993 the DPI and the U.S. Centers for Disease Control (CDC) joined forces to conduct the Youth Risk Behavior Survey. Researchers designed the 99 questions in the survey to measure objectives set by the CDC as part of its Year 2000 initiative. The CDC defined 16 objectives regarding the health of American youth. The objectives address five areas of concern: (1) intentional and unintentional injuries; (2) the use of tobacco, alcohol, and other drugs; (3) sexual activity; (4) dietary patterns; and (5) physical activity. The survey instrument, objectives and rationale are provided in the full report of survey results. Nearly 6,000 students in grades six, eight, and nine through twelve participated. The weighted responses can be used to make important inferences concerning the priority health-risk behaviors of all Wisconsin public school student at each level. Where data were available, Wisconsin rates are compared to national rates. In addition to identifying risky behaviors, the survey results point to ways various individuals and groups might be able to promote improvements. The raw data appears in an appendix. The Executive Summary is included. Contains 32 references. (RJM)

^{*} Reproductions supplied by EDRS are the best that can be made

* from the original document. *

EXECUTIVE SUMMARY AND REPORT



U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it
- Minor changes have been made to improve reproduction quality
- Points of view or opinions stated in this document do not necessarily represent official OFRI nosition or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

G.M. Doyle

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION

BEST COPY AVAILABLE



Wisconsin Youth Risk Behaviors

1993 Survey Results

Steven A. Fernan Susan A. Fredlund Angie M. Smithmier Consultants Bureau for Pupil Services



Wisconsin Department of Public Instruction John T. Benson, State Superintendent Madison, Wisconsin



This report was produced with funding from the U.S. Centers for Disease Control and Prevention under Cooperative Agreement #U87 CCU 508985-02

This publication is available from:

Bureau for Pupil Services
Wisconsin Department of Public Instruction
P O Box 7841
125 S Webster Street
Madison WI 53707-7841
(608) 267-3751

Bulletin No. 94305

© March 1994 by Wisconsin Department of Public Instruction

The Wisconsin Department of Public Instruction does not discriminate on the basis of sex, race, religion, age, national origin, ancestry, creed, pregnancy, marital or parental status, sexual orientation or physical, mental, emotional or learning disability.



Printed on Recycled Paper



Table of Contents

I	Page
Acknowledgements	. v
Introduction	. vii
Executive Summary	. 1
The Survey and Results	. 7 . 8
Tobacco, Alcohol, and Other Drug Use	
Sexual Behaviors	
Dietary Patterns	
Physical Activity	. 25
References	. 31
Appendixes	
A. Survey Instrument with Raw Data	. 33
B. "Year 2000" Objectives and Rationale	. 45



Acknowledgements

We express sincere appreciation to everyone who contributed to the 1993 Wisconsin Youth Risk Behavior Survey and this report. Beth Collins and Dean Fenley and the staff at the Division of Adolescent and School Health, U.S. Centers for Disease Control and Prevention, helped develop the survey instrument and provided background text and materials for the report. Roger Cheswass, of the North Central Regional Educational Laboratory and the Midwest Regional Center for Drug-Free Schools and Communities, helped develop the instrument. Nancy Speicher and Chuck Walters, of WESTAT Inc., drew the sample and tabulated and weighed the responses. School district superintendents, school principals, CESA facilitators, students, and teachers responded to our questionnaire. Finally, DPI staff members Barbara Nehls-Lowe, Sue Awve, Gary Nelson, Teresa Johnson, Linda Diring and Kathleen Palmer provided technical support in developing the instrument, sample, and final report.



Introduction

Health care reform is news lately. The survey detailed in this report represents a little reform right here in Wisconsin. The reform offers both immediate and long-range benefits for school health programs.

First, school district personnel already have benefitted by a reduction in reporting requirements. The 1993 Youth Risk Behavior Survey alone measured behaviors previously measured by the Wisconsin Study of Alcohol and Other Drug Use and the Youth Risk Behavior Study by the U.S. Centers for Disease Control (CDC).

The benefits are not administrative only. Incorporating a more detailed examination of alcohol and other drug use within a study of all youth risk behaviors represents a move towards a more comprehensive approach to school health programs. It also recognizes that risk behaviors do not take place in isolation of each other but are interrelated. Drug use, in particular, is often a factor in injuries and sexual behaviors.

Combining the two surveys exemplifies the potential benefits of a comprehensive approach. As one of five recipients nationally of grants for developing a comprehensive school health program, the Wisconsin Department of Public Instruction and Wisconsin schools have been identified by the CDC for potential in that area.

The rest of this publication provides data that will direct future programming. Next we must decide how we will accomplish those goals. But first let us concentrate momentarily on the achievements our emphasis on prevention has wrought. According to the summer 1993 issue of Prevention Outlook, recent national studies credit prevention for:

- the 3.5 million 12- to 17-year-olds who will not drink next month but would have had the norms and habits of 1979 prevailed;
- the 24 million young adults who do not use illicit drugs in any given month but would have under previous norms; and
- avoiding 11,400 drinking and driving deaths among youths ages 16 to 20—deaths that were avoided between 1982 and 1991 because prevention reversed the norms that made drug use, underage drinking, and drinking and driving acceptable a decade ago.

The need for similar results in addressing other high risk behaviors is greater now than ever. The same results that have been shown regarding drinking and driving can be achieved regarding seat belt use and other behaviors.



Executive Summary

What are the risks to the health and safety of Wisconsin's youth? How can state leaders learn about and mobilize to meet the health and safety needs of its school-age children? To determine the answers to these questions, every two years since 1989 the Wisconsin Department of Public Instruction (DPI) has surveyed students. In 1993 the DPI and the U.S. Centers for Disease Control (CDC) joined forces to conduct the Youth Risk Behavior Survey. The 99 questions in the survey instrument were designed to measure objectives set by the CDC as part of its Year 2000 initiative.

The CDC defined 16 objectives regarding the health of American youth. The objectives address five areas of concern: intentional and unintentional injuries; the use of tobacco, alcohol, and other drugs; sexual activity; dietary patterns; and physical activity. The survey instrument, objectives and rationale are provided in the full report of survey results.

Nearly 6,000 students in grades six, eight, and nine through twelve participated. Details about the sampling and analysis are included in the full report. The weighted responses can be used to make important inferences concerning the priority health-risk behaviors of all Wisconsin public school students at each level.

Where data were available, Wisconsin rates are compared to national rates. However, the latest national data available were collected in 1991. Readers should consider the differing time periods when comparing data.

Injuries

Objectives and questions addressing intentional and unintentional injuries deal with behaviors involving vehicles, weapons, physical aggression, and suicide.

Wearing seat belts and helmets are two safety measures that can prevent injuries involving motor vehicles. But, according to their responses, fewer than 50 percent of Wisconsin students always used seat belts and only 45 percent of the motorcyclists and 1 percent of the bicyclists always wore a helmet.

Students are carrying weapons (nearly one of five) and they are carrying them on school property (nearly one of ten). However, the 9 percent of Wisconsin students who carry weapons to school is well below the national average of 26 percent. In Wisconsin, the most commonly carried weapon among students is a gun, and the 16 percent of Wisconsin male students who carry guns is higher than the national average of 12 percent.

Four of ten students reported engaging in a physical fight, 40 percent of the time on school property. The 16 percent of Wisconsin students who reported fighting on school property is well below the national average of 42 percent.

Nearly one of three students (27 percent) reportedly considered suicide and one in five (22 percent) planned how to do it.

Tobacco, Alcohol, and Other Drug Abuse

The objectives and questions about drug use address, respectively, tobacco; alcohol; other drugs; factors in the home, school, and social environment; and the role of drugs in other activities involving risks, such as driving and sexual intercourse.



Tobacco use among students in grades eight, ten, and twelve has increased since 1991. Seven of ten students have smoked a cigarette at least once. Three of ten reported having smoked during the past 30 days. An equal number reported being regular smokers. One in eight students reported having used smokeless tobacco.

The data about alcohol use were more encouraging. Data from all grade levels showed a decrease in use from 1991 to 1993. The greatest decrease was at the sixth grade level, at which use dropped from 55 percent to 33 percent. Still, four of five students said they had at least one drink of alcohol in their lifetime. Half reported having had an alcoholic drink in the past 30 days. One third of the students responding to the study qualified as "binge" drinkers (having consumed five or more drinks of alcohol in a row in the past 30 days).

Survey questions about illicit drugs measured the use of marijuana, cocaine and crack cocaine, inhalants, steroids, and other drugs Students were asked if they ever used and if they used during the previous 30 days. Fourteen percent of students had used some form of illicit drug other than marijuana or cocaine. One of four students reported having tried marijuana, one of ten in the past 30 days. Fewer than five of 100 students have ever used any form of cocaine in their lifetime, three of 100 in the past 30 days. One in five students reported having used an inhalant to get high. Five in 100 reported using steroids.

Comparisons show fewer students in grades ten and twelve have tried marijuana than at those grade levels in 1991. The rate for grades six and eight remained the same. The percent of students who tried cocaine also decreased except for grade eight. The four percent of eighth-graders who reported having tried cocaine in 1993 compare to 2 percent in 1991. Similarly, the 4 percent of eighth-graders and 3 percent of tenth-graders who reported having tried crack cocaine in 1993 compare to 2 percent each in 1991. The rates for grades six and twelve remained the same.

Perhaps the riskiest behavior among young students and adults is drinking while driving or driving with someone who is under the influence of alcohol. Fifteen percent of students reported having driven a vehicle once or more in the past 30 days after they had been drinking alcohol. Forty percent of students reported riding with someone who had been drinking.

Sexual Behaviors

The objectives and questions about sexual behaviors address HIV/AIDS, sexual intercourse, other sexually transmitted diseases (STDs), unintended pregnancies, and forced sexual activity.

Questions about HIV/AIDS asked if students had received instruction about HIV/AIDS and if they had discussed the information with a parent or other adult in their family. Eighty-four percent reported having received information in school. Only 58 percent, however, had discussed the information with a parent or other adult.

Nearly one in two Wisconsin students reported having had sexual intercourse at least once. Six percent reported having been told by a medical professional that they had contracted an STD. Of the sexually active students, 58 percent used a condom during last intercourse and 22 percent reported using birth control pills. Five percent of students said they have been pregnant or gotten someone pregnant one or more times.

A disturbing occurrence in the behavior of high school youths is coercive sexual activity. Thirteen percent said they had been verbally or physically



forced to take part in sexual activity. Nearly 4 percent of students said they had physically or verbally forced someone into sexual activity.

Dietary Patterns

The objectives and questions dealing with dietary patterns address weight and dietary fat intake. Questions about weight addressed students' satisfaction with their weight and efforts to control their weight.

Forty-four percent of students regarded themselves as being "about the right weight." Thirty-six percent considered themselves overweight while 20 percent felt they were underweight. Satisfaction with weight varied according to gender and race. Nearly half of the students (43 percent) were trying to lose weight. The most popular weight control method was exercising.

Questions about food intake asked how often, during the previous day, students had eaten two types of food: fruits and vegetables, and high-fat foods. The high-fat foods measured were fatty meats, fried foods, and fatty carbohydrates. Many diets were missing fruits and vegetables: 36 percent no fruit, 38 percent no fruit juice, 72 percent no green salad, and 55 percent no cooked vegetables. Fatty foods were more popular: 52 percent had eaten a hamburger, hot dog or sausage; 53 percent french fries or potato chips; and 65 percent cookies, doughnuts, pie, or cake.

Physical Activity

The objective and questions addressing the physical activity of U.S. youth address the type, frequency, duration, and source of physical activity over the past seven days and the past 12 months. Types of exercise were aerobic, stretching, and strengthening or toning. Sources were walking or bicycling, physical education classes, school sports teams, and other sports teams.

Exercise was missing from the lives of many students: 15 percent reported no aerobic exercise, 27 percent no stretching exercise, and 29 percent no strengthening or toning. Sources of exercise were walking or bicycling (53 percent), physical education class (68 percent), school sports teams (56 percent), and nonschool sports teams (42 percent).

Overall, the level of physical activity by Wisconsin students is lower than the national average, with two exceptions: Wisconsin students in grade eleven reported more stretching, and Wisconsin students in grades eleven and twelve reportedly attended physical education class more often. The responses from youth are consistent with studies of adult populations, which suggest that, compared to national averages, Wisconsin residents have higher levels of obesity and lower levels of physical activity.

Conclusions

What does all the information say? For starters, it provides a snapshot of the risks to the health and safety of Wisconsin youth. Secondly, for the questions studied in previous surveys, the 1993 data allows us to measure change and, to some extent, the success of our efforts to promote healthy behaviors.

Three changes are encouraging. The decrease in the use of drugs other than tobacco, whatever the reason for the decrease, represents success. So does the reduction in drinking and driving and the delay in the age at which students first use alcohol, which research says is an important factor in reducing alcohol-related problems in later life.



Those successes will provide momentum as we address needs revealed by the survey results. While the snapshot provided by the results confirms the dangers students face, it also shows that students don't take advantage of many precautionary methods available to them. Their behaviors regarding seat belts, helmets, drinking and driving, and condoms support the contention that young people feel they are indestructible and immortal. Those behaviors indicate the following needs.

- Increase the use of seat belts and helmets.
- Reduce the number of students who carry weapons and who engage in fighting.
- Reduce the use of tobacco.
- Increase the number of students who protect themselves against sexually transmitted diseases.
- Increase the number of students who eat properly and exercise.

The increase in tobacco use is upsetting because of the incidence of illness and deaths due to smoking and because of the belief that a person passes through the "gateway" to illicit drugs when becoming a smoker.

Although health professionals might disagree about which—proper nutrition or exercise—is more essential to having a healthy body, no doubt all would agree that Wisconsin students need to improve in both areas.

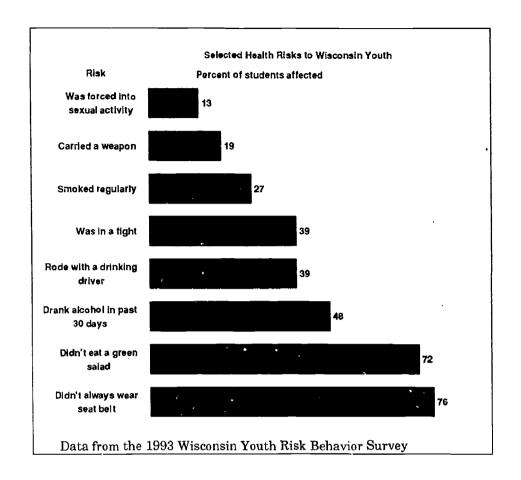
In addition to identifying risky behaviors, the survey results point to ways various individuals and groups might be able to promote improvement. For example, nine of ten students said their parents would be "very upset" to learn their child used an illicit drug other than alcohol; only one in four tried marijuana and four in 100 tried cocaine. On the other hand, two of five students said their parents would be only "a little upset" or "not at all upset" if the child used alcohol; four of five students had used alcohol. (Wisconsin parents contacted in a 1992 survey did indeed find the use of illicit drugs to be far more intolerable than drinking. Their responses were reported by the DPI in 1993 in A Tradition of Tolerance: What Wisconsin Parents Think About Teen Alcohol Use.) Society, beginning with parents, seemingly could be very influential in further reducing the number of students who use alcohol.

The survey results also point to the need for additional research. For instance, we need to learn more about Wisconsin students' concerns and behaviors involving their weight. The 1993 survey did provide facts where a misconception existed. Data about eating disorders indicates that, at least in Wisconsin, eating disorders are not confined to female students. Responses to the survey showed no substantial differences between male and female students regarding the use of vomiting or diet pills for weight control. We still don't know, however, why a substantial number of students (60 percent of the female students) are trying to lose weight. While weight loss can promote health when designed to improve nutrition and fitness or to resolve a valid weight problem, it's a risky behavior if motivated by a distorted body image, a culturally influenced desire to be overly thin, or is symptomatic of an eating disorder.

The data about weight control methods also point to a need for additional research. While 80 percent of female students reported attempts to either lose or maintain weight, only 67 percent reported using a method mentioned in the survey.

We must set about finding solutions to the needs revealed by the 1993 survey so the snapshot of students who respond to the 1995 survey will show a healthier group.







The Survey and Results

Wisconsin conducted its 1993 Youth Risk Behavior Survey as part of a national survey conducted by the U.S. Centers for Disease Control (CDC). The 99 questions in the survey instrument (see Appendix A) were designed to measure objectives set by the CDC as part of its Year 2000 initiative.

The CDC defined 16 objectives regarding the health of American youth. The objectives address five areas of concern: intentional and unintentional injuries; the use of tobacco, alcohol, and other drugs; sexual activity; dietary patterns; and physical activity. The objectives and rationale are provided in Appendix B.

Nationally, the survey was conducted among students in grades nine through twelve. In Wisconsin, students in grades six and eight were included, answering only the 40 questions about drug use. That provided data for comparisons to previous state surveys of students in grades six, eight, ten and twelve.

At each level the sampling frame included all public schools that contained the needed grades or grade. Schools were stratified implicitly by enrollment size, then selected systematically with probability proportional to enrollment size, using a random start. Within each selected school containing grades nine through twelve, only second-period classes were included in the sampling frame. At all levels, individual classes were chosen to participate via systematic equal probability sampling with a random start. Table 1 shows the number of schools sampled at each level and the response rates.

Table 1. Description of Participants, 1993 Youth Risk Behavior Survey

	Sampled	Responded	Rate
Grades Nine			
through Twelve			
Schools	88	61	69%
Students	3,826	3,314	87
Overall			.60%
Grade Eight			
Schools	36	2 5	69%
Students	942	888	94
Overall			65%
Grade Six			
Schools	3 8	2 8	74%
Students	1,137	1,014	89
Overall	•	-	66%

The results were weighted to reduce bias by compensating for differing patterns of nonresponse and to reflect the likelihood of sampling each student. The weight used for estimation was arrived at by the following formula: W=W1*W2*f1*f2*f3, where W1 is the inverse of the probability of school selection, W2 is the inverse of the probability of classroom selection, f1 is a school-level nonresponse adjustment factor, f2 is a student-level nonresponse adjustment factor calculated by class, and f3 is a poststratification adjust-



ment factor calculated by gender (and, for grades nine through twelve, by grade).

For grades nine through twelve, f1 was calculated by the local cooperative educational service agency (CESA). For grades eight and six, it was calculated by the size of the community where the school is located.

The resulting weighted responses can be used to make important inferences concerning the priority health-risk behaviors of all Wisconsin public school students at each level.

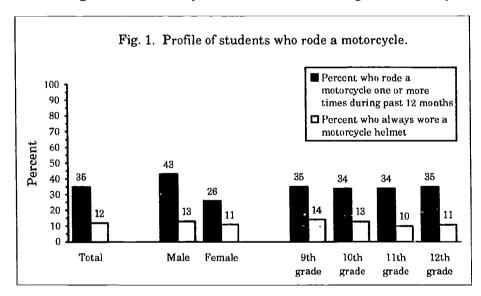
Where data was available, Wisconsin rates are compared to national rates. However, the latest national data available was collected in 1991. Readers should consider the differing time periods when making comparisons.

Injuries

The fir national objectives and 24 questions addressing intentional and unintentional injuries deal with behaviors involving vehicles, weapons, physical aggression, and suicide.

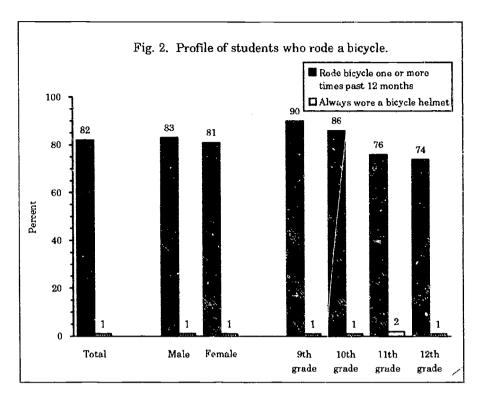
Wearing seat belts and helmets are two safety measures that can prevent injuries involving motor vehicles. While the percentage of students who reported wearing a seat belt is higher than other vehicle related prevention efforts, the rate is less than 50 percent.

About one-third of all students reported riding a motorcycle in the past year. Of those motorcyclists, only 45 percent reported having always worn a helmet. Figure 1 shows a 17 percent difference between genders in the per-



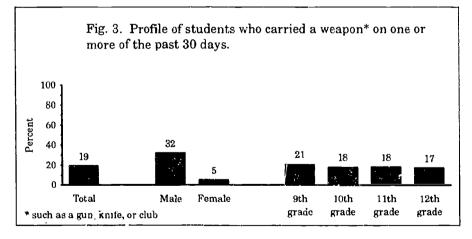
cent of students who rode motorcycles (male students 43 percent, female 26 percent) but only a 2 percent difference by gender in the percent of riders who wore helmets. Four of five students reported having ridden a bicycle once or more in the past 12 months. As shown in figure 2, riders were





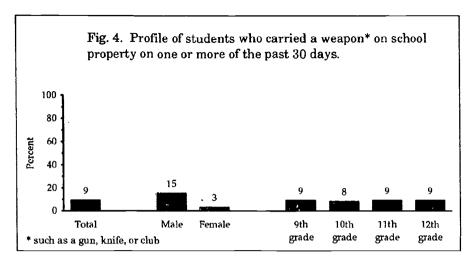
nearly equally divided by gender, but decreased by grade level. Of the bicyclists, only one of 100 always wore a helmet, irrespective of gender and grade level.

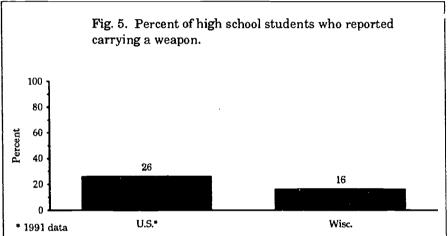
Nearly one of five students reported having carried a weapon once or more in the past 30 days. Again, the responses varied by gender (see figure 3). Nearly one of ten students carried a weapon on school property, three



times as many males students as female (see figure 4). More males (32 percent) than females (5 percent) carried a weapon. As shown in figure 5, the 9 percent of Wisconsin students who carry weapons to school is well below the national ...verage of 26 percent.

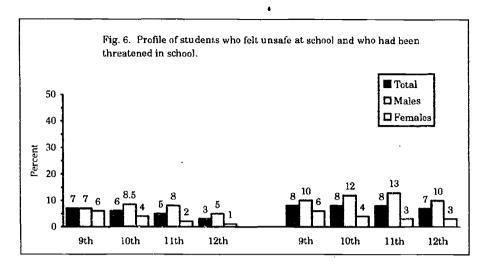




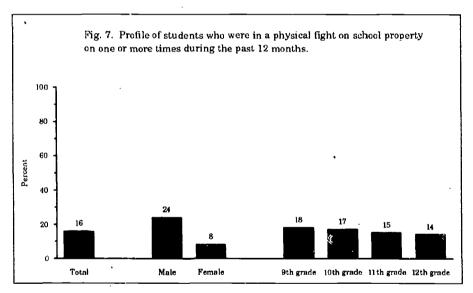


Guns are the most commonly carried weapon among Wisconsin high school students. The 16 percent of Wisconsin male students who carry guns is higher than the national average of 12 percent.

More than 30 percent of students reported having had property stolen or deliberately damaged during the previous 12 months while on school property. Nearly 8 percent said they had been threatened or injured with a weapon on school property. Nearly 6 percent said they had stayed home from school at least once because they felt unsafe at school or enroute. As figure 6 shows, compared to female students, three times as many male students reported being threatened.

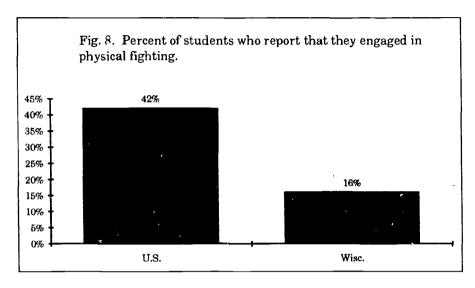


Four of ten students reported engaging in a physical fight. Again, the behavior was more common among males (47 percent) than females (31 percent). Of the fighting, 40 percent occurs on school property, involving 24 percent of the male students and 8 percent of the female students (see figure 7).

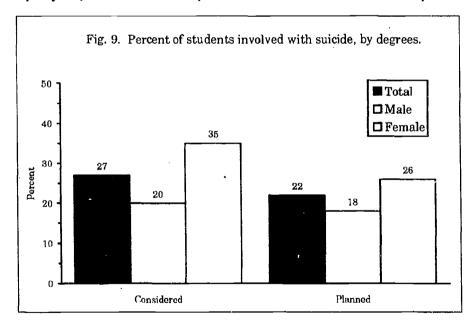


As shown in figure 8, the 16 percent of Wisconsin students who reported fighting on school property is well below the national average of 42 percent.





Questions about suicide measured the number of students who considered it, planned it, attempted it, and those whose attempts resulted in injuries requiring treatment. Nearly one of three students (27 percent) reportedly considered suicide, one in five (22 percent) planned to commit suicide, one in ten attempted, and three in 100 made attempts that required treatment. As shown in figure 9, although females accounted for the majority at the first three levels, the gender gap narrowed until both genders were equally represented at the point at which treatment was required.



Tobacco, Alcohol, and Other Drug Abuse

Three national objectives and 40 questions address, respectively, attitudes and behaviors regarding tobacco; alcohol; other drugs; and factors in the

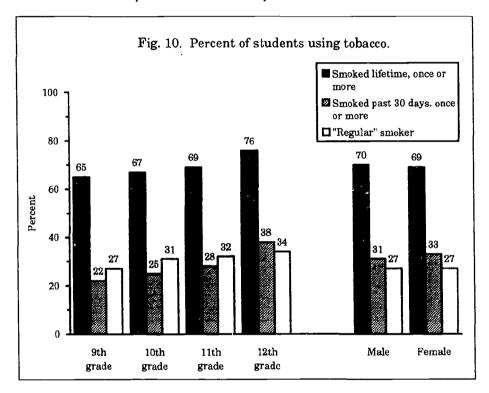


home, school, and social environment. Since Wisconsin collected data from students in grades six, eight, ten and twelve in 1989 and 1991, year-to-year comparisons are shown when possible. Comparisons may be affected, however, by slightly varied sampling and survey administration processes.

Questions about tobacco asked whether students had ever used cigarettes and smokeless tobacco, the age at which they began, how often and how much they use, and if they had ever tried to stop.

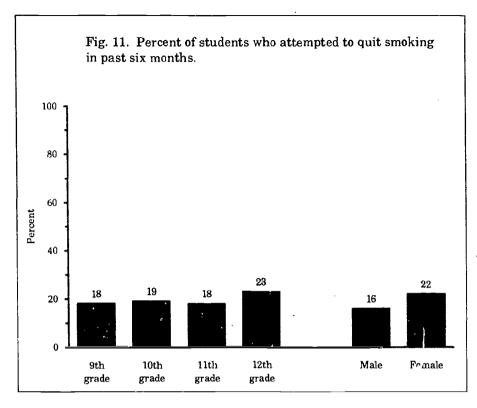
Seven of ten students reported some cigarette use in their lifetime. Three of ten reported having smoked during the past 30 days. An equal number reported being regular smokers. Of the students indicating they had smoked at least one whole cigarette in their lifetime, a majority reported having done so by age 14. One in five students reported having tried to quit smoking in the past six months.

As shown in figure 10, students in grade twelve showed higher rates at all levels. Males reported more use except for two measures: more females

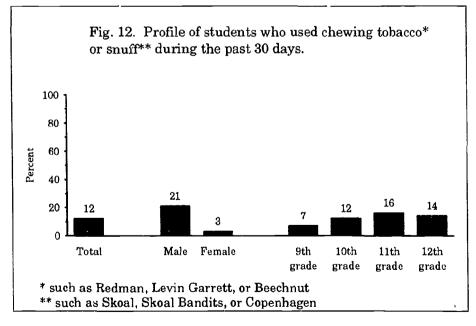


considered themselves regular smokers and more females had tried to quit (see figure 11).





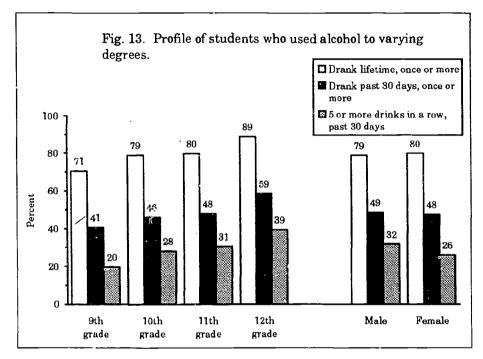
One in eight students reported having used smokeless tobacco. As shown in figure 12, the rate was significantly higher for males (21 percent) than for females (3 percent).



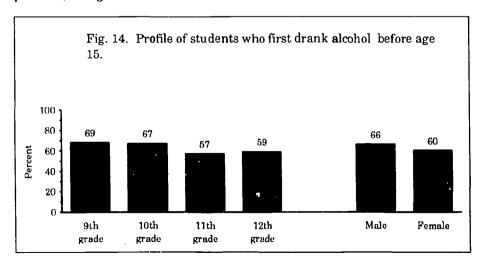
The Youth Risk Behavior Survey asked students what age they were when they had their first alcoholic drink, how often they drink, how much,

where, how their parents feel about it, and where they got the alcohol they drank.

Two of three students reported having had their first drink of alcohol before age 15. Four of five said they had at least one drink of alcohol in their lifetime. Half reported having had an alcoholic drink in the past 30 days. One third of the students responding to the study qualified as "binge" drinkers (having consumed five or more drinks of alcohol in a row in the past 30 days). As shown in figure 13, use increased with grade level for every measure. Differences between genders was small except for binge drinking,



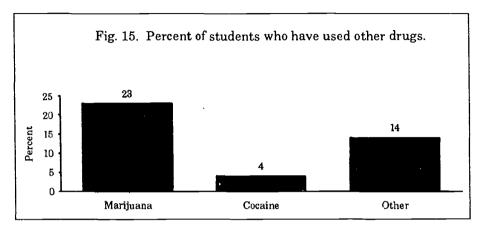
which was more prevalent among male students (32 percent) than among female students (26 percent). Also, more male students (66 percent) reported having had their first drink by age 15. The rate for female students was 60 percent (see figure 14).





Survey questions about illicit drugs measured the use of marijuana, cocaine and crack cocaine, inhalants, steroids, and other drugs. Students were asked if they ever used and if they used during the previous 30 days.

As shown in figure 15, one of four students reported having tried marijuana, one of ten in the past 30 days. Older students used more than younger students, male students more than female students. Fewer than



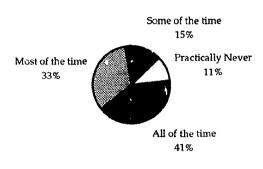
four of 100 students have ever used any form of cocaine in their lifetime, three of 100 in the past 30 days. The level of use was consistent across grade levels but varied between genders. Use by male students was twice that of female students. Fourteen percent of students had used some form of illicit drug other than marijuana or cocaine. One in five students reported having used an inhalant to get high. Five in 100 reported using steroids.

Many factors play a role in an adolescent's decision to use or, more importantly, not to use tobacco, alcohol, and other drugs. Skills and support from home, school, and community are extremely important. Eight questions addressed influences from peers, parents, and school. Students were asked to what extent peers influenced their use of drugs, how often parents monitored their activities, how often parents knew when the student had been drinking, how upset their parents would be if the student used alcohol, how upset their parents would be if the student used other drugs, and about the rules and services schools have developed to address drug abuse.

Three of four students said their parents asked about and knew where their child was and with whom "most" or "all" of the time (see figure 16).

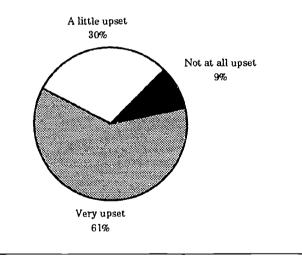


Fig. 16. Student responses to "how often do your parents ask where you are going or with whom you will be?"



Two of five students said their parents would be "a little upset" or "not at all upset" if they learned their child had been drinking (see figure 17). The sup-

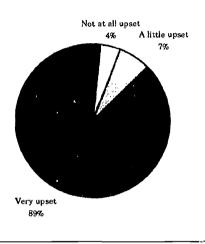
Fig. 17. Student responses to "if you came home from a party and your parents found out that you had been drinking, how upset do you think they would be?"



posed reaction to illicit drugs was stronger; nine of ten students said their parents would be "very upset" to learn their child had been using illicit drugs (figure 18).



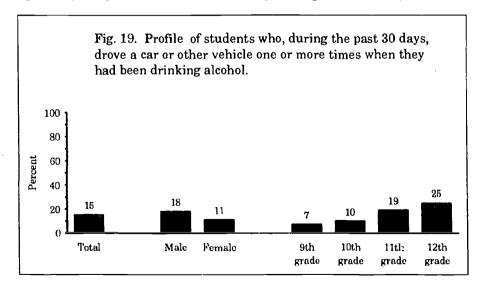
Fig. 18. Student responses to "if you came home from a party and your parents found out that you had been using illegal drugs, other than alcohol and tobacco, how upset do you think they would be?"



Peers figure into a student's drug use in at least three ways, according to responses to the survey. One of three students reported feeling "a little" or "a lot" of pressure from friends to use alcohol or other drugs. For one of two students, drinking usually occurred at a party with friends. For one of four, a same-age friend supplied the alcohol.

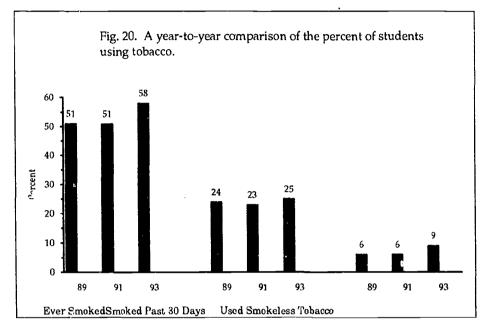
Students indicated knowledge of school courses (89 percent) and rules (83 percent) addressing drug abuse, but fewer (39 percent) were aware of services schools provide.

Perhaps the riskiest behavior among young students and adults is drinking while driving or driving with someone who is under the influence of alcohol. Fifieen percent of students reported having driven a vehicle once or more in the past 30 days after they had been drinking alcohol. As shown in figure 19, the percent increased markedly from grade nine (7 percent) to

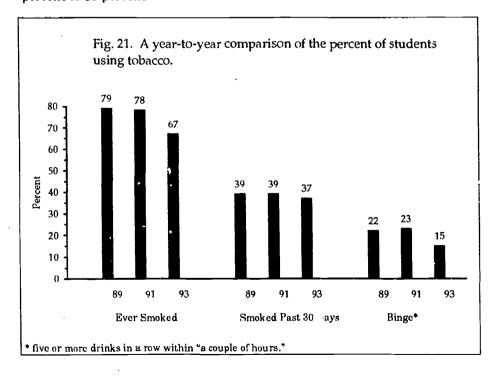


twelve (25 percent). Forty percent of students, grades nine through twelve, reported riding with someone who had been drinking. That percent was consistent for both genders and all grades.

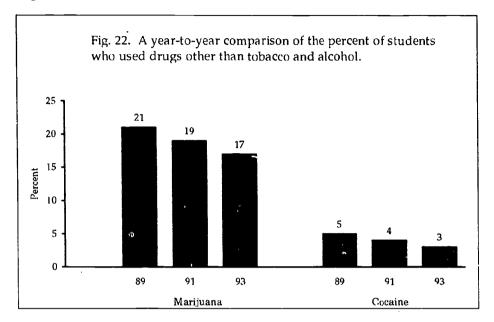
A comparison to previous years indicates an increase in smoking and in the use of smokeless tobacco (see figure 20). Data from all grade levels



showed a decrease in alcohol use from 1991 to 1993 (see figure 21). The greatest decrease was at the sixth grade level, at which use dropped from 55 percent to 33 percent.

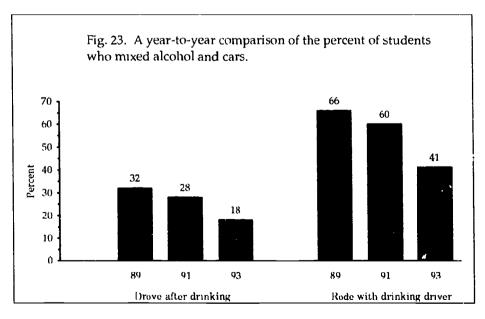


As shown in figure 22, comparisons show a decrease in the use of marijuana and cocaine. Fewer students in grades 10 and 12 have tried marijuana than at those grade levels in 1991. The rate for grades six and eight



remained the same. The percent of students who tried cocaine also decreased except for grade eight. The 4 percent of eighth-graders who reported having tried cocaine in 1993 compare to 2 percent in 1991. Similarly, the 4 percent of eighth-graders and 3 percent of tenth-graders who reported having tried crack cocaine in 1993 compare to 2 percent each in 1991. The rates for grade six and twelve remained the same.

Finally, figure 23 shows a significant reduction between 1991 and 1993 in the number of students who mixed alcohol and cars.



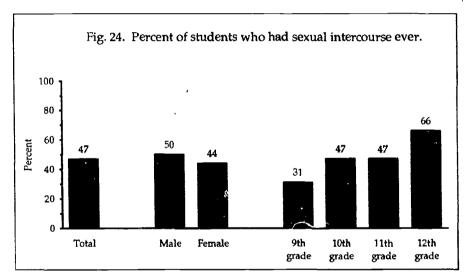
Sexual Behaviors

Four national objectives and 11 questions deal with sexual behaviors. They address HIV/AIDS, sexual intercourse, other sexually transmitted diseases (STDs), unintended pregnancies, and forced sexual activity.

Questions about HIV/AIDS asked if students had received instruction about HIV/AIDS and if they had discussed the information with a parent or other adult in their family. Eighty-four percent reported having received information in school. Only 58 percent, however, had discussed the information with a parent or other adult. Six percent reported having been told by a medical professional that they had contracted an STD.

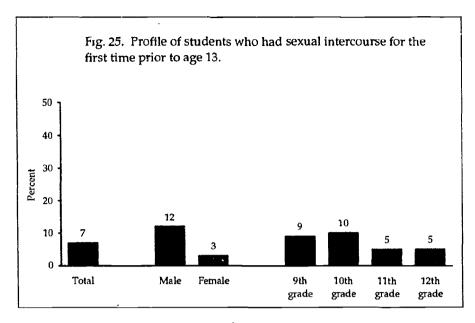
Questions about intercourse asked if students had ever engaged in it, if they were sexually active at the time of the survey, at what age they first engaged in sexual activity, whether drugs were a factor during their most recent sexual activity, and what protection they used against pregnancy and HIV/AIDS.

Nearly one in two Wisconsin students reported having had sexual intercourse at least once. As shown in figure 24, the rate is slightly higher for males (50 percent) than for females (44 percent). The rate was highest (66

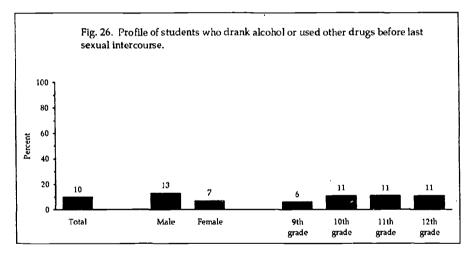


percent) among students in grade twelve. Only 7 percent of Wisconsin students had engaged in sex prior to age 13. As shown in figure 25, the 12 percent of males students who were sexually active before age 13 was four times that of female students (3 percent). Alcohol was a factor in 10 percent of the





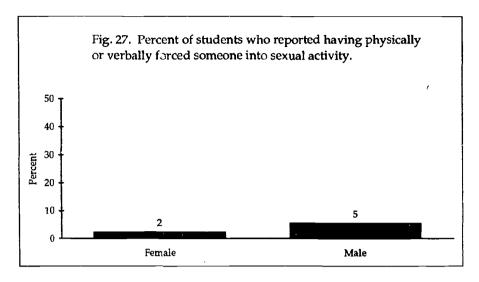
most recent incidences of sexual activity. Again, the responses differed by gender. Nearly twice as many male students (13 percent) said drugs were involved, compared to 7 percent of the female students (see figure 26).



Of the sexually active students, 58 percent used a condom during last intercourse and 22 percent reported using birth control pills. The use of birth control pills increased markedly between grade nine (3 percent) and grade twelve (19 percent).

A disturbing trend in the behavior of high school youths is coercive sexual activity. Thirteen percent of students said they had been verbally or physically forced to take part in sexual activity. Nearly 4 percent of students said they had physically or verbally forced someone into sexual activity. As shown in figure 27, the rate was twice as high for male students (5 percent compared to 2 percent for female students).





Five percent of students said they have been pregnant or gotten someone pregnant one or more times. The rate was highest for grade twelve.

Dietary Patterns

The two national objectives and 11 questions dealing with dietary patterns address weight and dietary fat intake. Question about weight addressed students' satisfaction with their weight and efforts to control their weight.

Forty-four percent of students regarded themselves as being "about the right weight." Thirty-six percent considered themselves overweight while 20 percent felt they were underweight.

Satisfaction with weight varied according to gender and race. Compared to male students, twice as many female students thought themselves overweight and half as many thought themselves underweight. The 49 percent of female students who considered themselves overweight compared to 22 percent of the males. Conversely, the 13 percent of female students who thought themselves underweight compares to 28 percent of the male students. While 26 percent of black students and 31 percent of students of "other" races considered themselves underweight, only 19 percent of the white students did.

Nearly half of the students (43 percent) were trying to lose weight. Again, the number of female students trying to lose weight (64 percent) far exceeded the number of males (25 percent). Conversely, the 31 percent of male students trying to gain weight was five times that of the female students (6 percent) trying to gain weight.

Female students seemingly were more concerned with weight gain than male students were no matter how they felt about their weight. The number of female students trying to lose weight (64 percent) exceeded the number who perceived themselves to be overweight (49 percent). Likewise, the percent of female students trying to gain weight (6 percent) was less than the number who considered themselves underweight (13 percent). Male students, however, behaved in a manner more consistent with their perceptions: 22 percent reported themselves overweight and 25 percent reportedly were attempting to lose weight; 28 percent reported themselves underweight and 31 percent were attempting to gain weight.



Questions about weight control asked about dieting, exercise, a combination of dieting and exercising, vomiting, diet pills, and combined vomiting and pills. A substantially higher percent of female students reported dieting or combining dieting and exercising for weight control compared to male students. Twice as many female students were dieting (female students 13 percent, male 6 percent) and the 26 percent of female students combining dieting and exercise compares to 9 percent of the males doing both. Rates were nearly identical for exercise alone (female students 21 percent, male students 22 percent).

Few students of either gender reported using vomiting, diet pills, or both for weight control. Totals ranged from 1 to 4 percent.

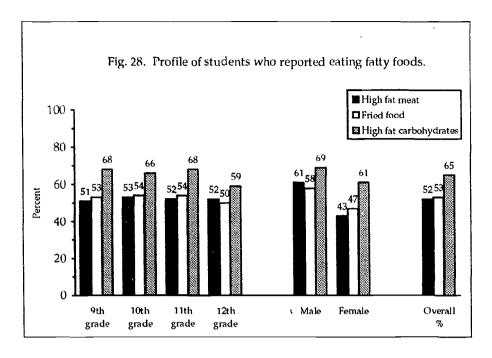
A comparison of data regarding methods of weight control and data regarding the direction of weight control suggests students are using weight control methods not asked about in this survey. While 80 percent of female students reported attempts to either lose or maintain weight, only 67 percent reported using a method mentioned in the survey. The discrepancy for males was not so dramatic. Forty-six percent of male students reported attempts to either lose or maintain weight and 43 percent reported using one of the methods mentioned in the survey.

The percent of students dieting decreased slightly as the grade level increased, ranging from 8 percent in grade nine to 12 percent in grade twelve. Responses indicated a corresponding decrease in exercise, beginning at 25 percent in grade nine and falling to 19 percent by grade twelve.

Questions about food intake asked how often, during the previous day, students had eaten two types of food: fruits and vegetables, and high-fat foods. The high-fat foods measured were fatty meats, fried foods, and fatty carbohydrates.

Many diets were missing fruits and vegetables: 36 percent no fruit, 38 percent no fruit juice, 72 percent no green salad, and 55 percent no cooked vegetables. Fatty foods were more popular: 52 percent had eaten a hamburger, hot dog or sausage; 53 percent french fries or potato chips; and 65 percent cookies, doughnuts, pie, or cake. As figure 28 shows, male students consumed high-fat meat, fried food, and high-fat carbohydrates at much higher rates than female students did.



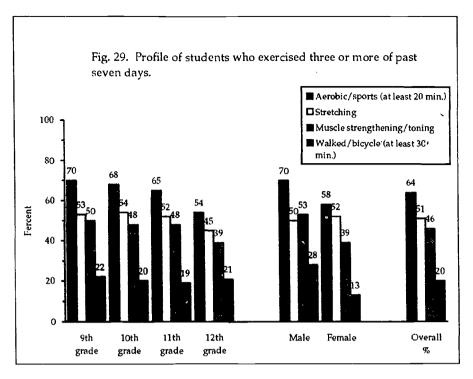


Physical Activity

The national objective and eight questions addressing the physical activity of U.S. youth address the type, frequency, duration, and source of physical activity over the past seven days and the past 12 months. Types of exercise were aerobic, stretching, and strengthening or toning. Sources were walking or bicycling, physical education classes, school sports teams, and nonschool sports teams.

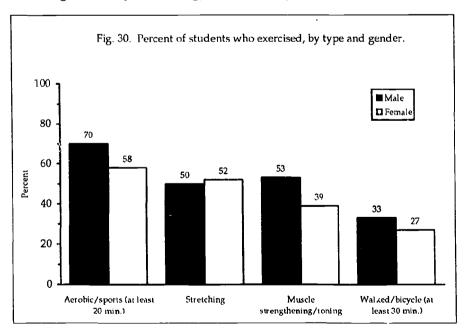
Exercise was missing from the lives of many students: 15 percent reported no aerobic exercise, 27 percent no stretching exercise, and 29 percent no strengthening or toning. Figure 29 shows the percent of students





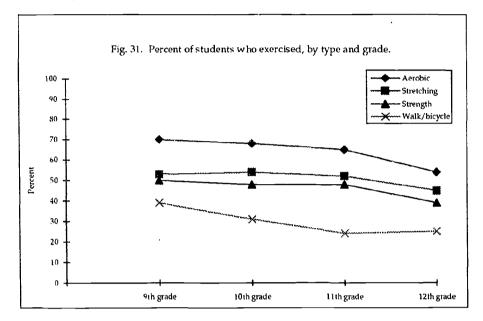
exercising the recommended three times per week. Sources of exercise were walking or bicycling (53 percent), physical education class (68 percent), school sports teams (56 percent), and nonschool sports teams (42 percent).

As shown in figure 30, male students reported higher levels for all exercise categories except stretching, for which responses from female students



were slightly (2 percent) higher. Considering the lack of a gender difference regarding exercising to lose or maintain weight, more male students may be exercising for fitness rather than weight control.

All types of exercise declined with increasing grade levels (see figure 31). This pattern of decline was similar for both males and females, with the exception of stretching exercises. The number of female students who did stretching exercises was consistent across grade levels.



As shown in figure 32, attendance for physical education classes varied by gender and grade. Also, attending class was no guarantee of exercise.

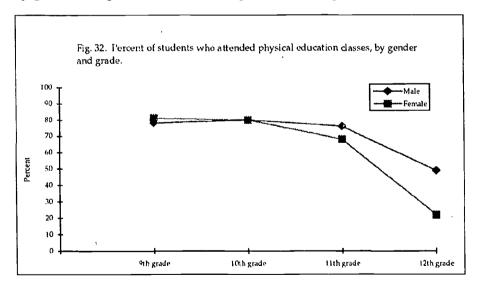


Figure 33 shows the relationship between attending class and getting at least 20 minutes of exercise.



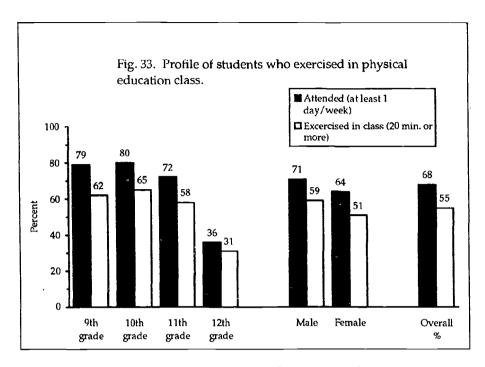
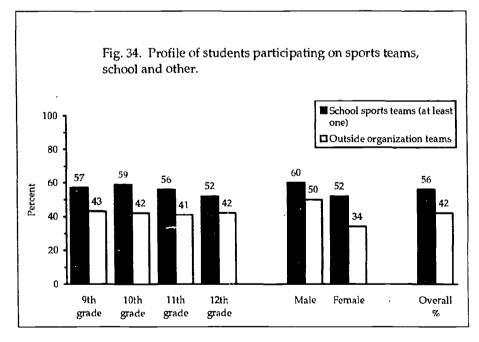


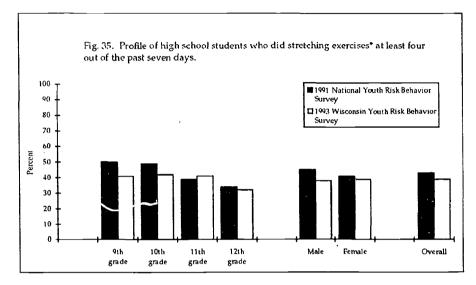
Figure 34 shows that fewer female students reported involvement with sports teams: 8 percent fewer for school teams, 16 percent for other. The apparent declining involvement with sports teams across grade levels, however, can be accounted for by a decline in female participation. Rates of



involvement with teams sponsored by organizations outside of school show only minimal declines with increasing grade levels. When separated by gender, males actually show a slight increase in this type of team participation, while females show a decline.

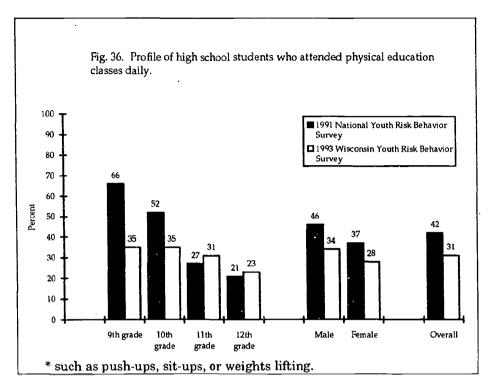
The decline in physical activity at higher grade levels is consistent with national data, as is the lower level of physical activity by female students. The lack of a gender difference regarding stretching exercises in Wisconsin differs from national data. Nationally, female students reported less stretching.

Overall, the level of physical activity by Wisconsin students is lower than the national average, with two exceptions: Wisconsin students in grade eleven reported more stretching (see figure 35) and students in grades



eleven and twelve reportedly attended physical education class more often (see figure 36).





The responses from youth are consistent with studies of adult populations, which suggest that, compared to national averages, Wisconsin residents have higher levels of obesity and lower levels of physical activity.



References

Search Institute. The Wisconsin Study: Alcohol and Other Drug Use. Madison, WI: The Wisconsin Department of Public Instruction and The Wisconsin Department of Health and Social Services, 1991.

Wisconsin Department of Health and Social Services. AIDS Surveillance Summary: Wisconsin and U.S. Madison, WI: The Wisconsin Department of Health and Social Services, 1991.

Wisconsin Department of Public Instruction. Wisconsin Youth Risk Behavior and HIV/AIDS Prevention Education: Survey Results. Madison, WI: The Wisconsin Department of Public Instruction, 1992.



Appendix A

1993 Youth Risk Behavior Survey (9-12 Grade Students)

This survey is about health behavior. It has been developed so you can tell us what you do that may affect your health. The information you give will be used to develop better health education programs for young people like yourself.

DO NOT write your name on this survey or the answer sheet. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

Completing the survey is voluntary. Whether or not you answer the questions will not

affect your grade in this class.

The questions that ask about your background will only be used to describe the types of students completing this survey. The information will not be used to find out your name. No names will ever be reported.

Place all your answers on the answer sheet. Fill in the circles completely. Make sure to answer every question. When you are finished, follow the instructions of the person giving you the survey.

Thank You Very Much for Your Help



INSTRUCTIONS: Read each question carefully. Fill in the circle on your answer sheet that matches the letter of your answer. CHOOSE THE ONE BEST ANSWER FOR EACH QUESTION.

1.	How old are you?	
	a. 15 or lessb. 16 or 17 years oldc. 18 or older	1215 1755 341
2.	What is your sex?	
	a. female b. male	1594 1715
3.	In what grade are you?	
	a. 9th gradeb. 10th gradec. 11th graded. 12th grade	906 862 898 616
4.	How do you describe yourself?	
	a. White - not Hispanicb. Black - not Hispanicc. Hispanicd. Other	2914 142 82 172
5.	Compared to other students class, what kind of student w say you are?	
	 a. One of the best b. Far above the middle c. A little above the middle d. In the middle e. A little below the middle f. Far below the middle g. Near the bottom 	16.4% 22.1% 25.9% 26.5% 6.1% 1.4% 1.6%
6.	How often do you wear a seat l	oelt when

riding in a car driven by someone else?

12.0%

17.1%

19.7%

26.8% 24.4%

7.	During the past 12 months, how many
	times did you ride a motorcycle?

a. 0 times	65.3%
b. 1 to 10 times	22.7%
c. 11 to 20 times	3.8%
d. 21 to 39 times	2.5%
e. 40 or more times	5.7%

8. When you rode a motorcycle during the past 12 months, how often did you wear a helmet?

a.	I did not ride a motorcycle	
	during the past 12 months	65.2%
b.	Never wore a helmet	11.9%
c.	Rarely wore a helmet	3.2%
d.	Sometimes wore a helmet	3.2%
e.	Most of the time	4.4%
f.	Always wore a helmet	12.1%

During the past 12 months, how many times did you ride a bicycle?

a. 0 times	18. 0 %
b. 1 to 10 times	29.4%
c. 11 to 20 times	15.4%
d. 21 to 39 times	10.0%
e. 40 or more times	27.3%

10. When you rode a bicycle during the past 12 months, how often did you wear a helmet?

a.	I did not ride a bicycle	
	during the past 12 months	18.0%
b.	Never wore a helmet	76.3%
c.	Rarely wore a helmet	2.1%
d.	Sometimes wore a helmet	1.3%
e.	Most of the time wore a	
	helmet .	1.2%
f.	Always wore a helmet	1.0%

a. Never

b. Rarely

e. Always

c. Sometimes

d. Most of the time

11. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

a. 0 times	61.3%
b. 1 time	12.6%
c. 2 or 3 times	14.4%
d. 4 or 5 times	4.2%
e. 6 or more times	7.6%

12. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

a. 0 times	85.3%
b. 1 time	6.4%
c. 2 or 3 times	4.3%
d. 4 or 5 times	1.0%
e. 6 or more times	3.1%

13. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?

a. 0 days	81.1%
b. 1 day	3.4%
c. 2 or 3 days	4.3%
d. 4 or 5 days	1.7%
e. 6 or more days	9.45

14. During the past 30 days, on how many days did you carry a gun?

a. 0 days	91.3%
b. 1 day	2.3%
c. 2 or 3 days	2.5%
d. 4 or 5 days	0.7%
e. 6 or more days	3.2%

15. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club **on school property**?

a. 0 days	91.0%
b. 1 day	1.9%
c. 2 or 3 days	1.7%
d. 4 or 5 days	0.8%
e. 6 or more days	4.6%

16. During the past 30 days, how many days did you **not** go to school because you felt you would be unsafe at school or on your way to or from school?

a.	0 days	94.4%
b.	1 day	2.2%
c.	2 or 3 days	1.4%
d.	4 or 5 days	0.6%
e.	6 or more days	1.4%

17. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?

a. 0 times	92.1%
b. 1 time	3.1%
c. 2 or 3 times	2.0%
d. 4 or 5 times	0.8%
e. 6 or 7 times	0.3%
f. 8 or 9 times	0.3%
g. 10 or 11 times	0.1%
h. 12 or more times	1.3%

18. During the past 12 months, how many times has someone stolen or deliberately damaged your property such as your car, clothing, or books on school property?

a. 0 times	69.0%
b. 1 time	15.2%
c. 2 or 3 times	10.0%
d. 4 or 5 times	2.3%
e. 6 or 7 times	1.0%
f. 8 or 9 times	0.5%
g. 10 or 11 times	0.3%
h. 12 or more times	1.8%

19. During the past 12 months, how many times were you in a physical fight?

a. 0 times	60.6%
b. 1 time	14.8%
c. 2 or 3 times	13.0%
d. 4 or 5 times	3.6%
e. 6 or 7 times	2.0%
f. 8 or 9 times	0.7%
g. 10 or 11 times	0.9%
h 12 or more times	4 3%



- 20. The **last time** you were in a physical fight, with whom did you fight?
 - a. I have never been in a physical fight 43.9%
 b. A total stranger 7.1%
 c. A friend or someone I know 19.7%
 d. A boyfriend, girlfriend, or date 2.6%
 - e. A parent, brother, sister, or other family member 14.1%
 - f. Someone not listed above 6.7%
 g. More than one of the persons listed above 6.0%
- 21. During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?

a.	0 times	95.3%
b.	1 time	2.9%
c.	2 or 3 times	0.8%
d.	4 or 5 times	0.4%
e.	6 or more times	0.6%

22. During the past 12 months, how many times were you in a physical fight on school property?

a. 0 times	83.9%
b. 1 time	9.3%
c. 2 or 3 times	4.5%
d. 4 or 5 times	0.8%
e. 6 or 7 times	0.3%
f. 8 or 9 times	0.3%
g. 10 or 11 times	0.0%
h. 12 or more times	0.9%

- 23. Have you ever been verbally or physically forced to take part in sexual activity?
 - a. I have never taken part in sexual activity
 b. Yes
 c. No
 d. Unsure
 27.6%
 12.8%
 52.7%
 6.9%

24. Have you ever verbally or physically forced someone to take profit in sexual activity?

a. I have never taken part	in
sexual activity	29.4%
b. Yes	3.8%
c. No	64.1%
d. Unsure	2.8%

25. During the past 12 months, when you went swimming in places such as a pool, lake, or ocean, how often was an adult or a lifeguard watching you?

a.	I did not go swimming during	
	the past 12 months	11.1%
b.	Never	18.2%
c.	Rarely	22.9%
d.	Sometimes	19.9%
e.	Most of the time	17.8%
f.	Always	10.2%

Sometimes people feel so depressed and hopeless about the future that they may consider attempting suicide, that is, taking some action to end their own life.

26. During the past 12 months, did you ever seriously consider attempting suicide?

a.	Yes	27.4%
b.	No	72.6%

- 27. During the past 12 months, did you make a plan about how you would attempt suicide?
 - a. Yes 21.8% b. No 78.2%
- 28. During the past 12 months, how many times did you actually attempt suicide?
 - a. 0 times
 - b. 1 time
 - c. 2 or 3 times
 - d. 4 or 5 times
 - e. 6 or more times



- 29. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?
 - a. I did not attempt suicide
 during the past 12 months
 b. Yes
 c. No
 90.6%
 2.8%
 6.6%

The next ten questions ask about tobacco use.

30. Have you ever tried cigarette smoking, even one or two puffs?

a.	Yes	69.3%
b.	No	30.7%

- 31. How old were you when you smoked a whole cigarette for the first time?
 - a. I have never smoked a whole cigarette
 b. Less than 9 years old
 c. 9 or 10 years old
 d. 11 or 12 years old
 e. 13 or 14 years old
 f. 15 or 16 years old
 g. 17 or more years old
- 32. Have you ever smoked cigarettes regularly, that is, at least one cigarette every day for 30 days?

a. Yes	26.9%
b. No	73.1%

33. How old were you when you first started smoking cigarettes regularly (at least one cigarette every day for 30 days)?

a. I have never smoked a	
whole cigarette	73.2%
b. Less than 9 years old	1.4%
c. 9 or 10 years old	2.1%
d. 11 or 12 years old	5.0%
e. 13 or 14 years old	9.6%
f. 15 or 16 years old	7.1%
g. 17 or more years old	1.6%

34. During the past 30 days, on how many days did you smoke cigarettes?

a. 0 days	68.2%
b. 1 or 2 days	6.6%
c. 3 to 5 days	3.2%
d. 6 to 9 days	2.7%
e. 10 to 19 days	3.4%
f. 20 to 29 days	5.0%
g. All 30 days	10.8%

35. During the past 30 days, on the days you smoked, how many cigarettes did you smoke **per day**?

a.	I did not smoke cigarettes	
	during the past 30 days	67.6%
b.	Less than 1 cigarette per day	y 5.6%
c.	1 cigarette per day	4.9%
d.	2 to 5 cigarettes per day	12.3%
e.	6 to 10 cigarettes per day	4.6%
f.	11 to 20 cigarettes per day	3.4%
g.	More than 20 cigarettes per	day1.5%

36. During the past 30 days, on how many days did you smoke cigarettes on school property?

a. 0 days	86.5%
b. 1 or 2 days	4.4%
c. 3 to 5 days	1.0%
d. 6 to 9 days	1.2%
e. 10 to 19 days	2.0%
f. 20 to 29 days	1.5%
g. All 30 days	2.5%

- 37. During the past 6 months, did you try to quit smoking cigarettes?
 - a. I did not smoke cigarettes during the past 6 months
 b. Yes
 c. No
 66.5%
 19.1%
 14.3%
- 38. During the past 30 days, did you use chewing tobacco, such as Redman, Levi Garrett, or Beechnut, or snuff, such as Skoal, Skoal Bandits, or Copenhagen?
 - a. No, I did not use chewing tobacco or snuff during the past 30 days
 b. Yes, chewing totacco only c. Yes, snuff only d. Yes, both chewing tobacco and snuff

 88.0%
 4.1%
 3.0%

- 39. During the past 30 days, did you use chewing tobacco such as Redman, Levi Garrett, or Beechnut, or snuff, such as Skoal, Skoal Bandits, or Copenhagen on school property?
 - a. No, I did not use chewing tobacco or snuff during the past 30 days
 b. Yes, chewing tobacco only
 c. Yes, snuff only
 d. Yes, both chewing tobacco and snuff
 2.8%

The next nine questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

- 40. How old were you when you had your first drink of alcohol other than a few sips?
 - a. I have never had a drink of alcohol other than a few sips 20.2% b. Less than 9 years old 13.0% c. 9 or 10 years old 7.8% d. 11 or 12 years old 15.9% e. 13 or 14 years old 26.4% f. 15 or 16 years old 14.8% 1.8% g. 17 or more years old
- 41. During your life, on how many days have you had at least one drink of alcohol?

a. 0 days	20.6%
b. 1 or 2 days	9.8%
c. 3 to 9 days	16.9%
d. 10 to 19 days	12.6%
e. 20 to 39 days	13.4%
f. 40 to 99 days	11.8%
g. 100 or more days	14.9%

42. During the past 30 days, on how many days did you have at least one drink of alcohol?

a. 0 days	51.9%
b. 1 or 2 days	21.3%
c. 3 to 5 days	11.8%
d. 6 to 9 days	7.3%
e. 10 to 19 days	5.2%
f. 20 to 29 days	0.9%
g. All 30 days	1.6%

43. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

a. 0 days	71.0%
b. 1 day	9.5%
c. 2 days	6.0%
d. 3 to 5 days	7.1%
e. 6 to 9 days	3.5%
f. 10 to 19 days	1.5%
g. 20 or more days	1.3%

44. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?

a. 0 days	94.6%
b. 1 or 2 days	3.0%
c. 3 to 5 days	1.0%
d. 6 to 9 days	0.3%
e. 10 to 19 days	0.2%
f. 20 to 29 days	0.1%
g. All 30 days	0.8%

- 45. During the past year, in which situations did you most often drink alcohol? (Chose only one answer.)
 - a. I didn't drink alcohol in the past year 32.0%
 b. At a party 49.8%
 c. At home 15.0%
 d. In a car 2.6%
 e. At school 0.5%

46. How often do you think your parents know when you have been drinking alcohol?

a.	I never drink alcohol	28.1%
b.	My parents never know	29.8%
c.	My parents sometimes know	21.1%
d.	My parents know most of	
	the time	9.9%
e.	My parents always know	11.0%

47. If you came home from a party and your parents found out that you had been drinking, how upset do you think they would be?

a. Not at all upset	9.2%
b. A little upset	29.5%
c. Very upset	61.3%

48. Where do you get the alcohol you drink? (Choose the one answer that is most correct.)

a. I never drink alcohol	28.4%
b. I get it from friends my	
own age	24.2%
c. I buy it at a store	5.5%
d. I get it from a bar or tavern	2.9%
e. I ask someone of legal age to	
buy it for me	23.3%
f. I get it at home from the	
alcohol my parents have	15.7%

The next four questions ask about the use of marijuana, which is also called grass or pot.

49. How old were you when you tried marijuana for the first time?

a. I have never tried marijuana	77.0%
b. Less than 9 years old	2.0%
c. 9 or 10 years old	1.1%
d. 11 or 12 years old	2.1%
e. 13 or 14 years old	7.6%
f. 15 o r 16 years old	8.1%
g. 17 or more years old	2.1%

50. During your life, how many times have you used marijuana?

a. 0 times	77.2%
b. 1 or 2 times	6.1%
c. 3 to 9 times	5.7%
d. 10 to 19 times	2.7%
e. 20 to 39 times	2.5%
f. 40 to 99 times	2.2%
g. 100 or more times	3.5%

51. During the past 30 days, how many times did you use marijuana?

a.	0 times	88.8%
b.	1 or 2 times	4.6%
c.	3 to 9 times	2.9%
d.	10 to 19 times	1.3%
e.	20 to 39 times	1.0%
f.	40 or more times	1.5%

52. During the past 30 days, how many times did you use marijuana on school property?

a.	0 times	96.3%
b.	1 or 2 times	1.5%
c.	3 to 9 times	0.7%
d.	10 to 19 times	0.4%
e.	20 to 39 times	0.3%
f.	40 or more times	0.9%

The next nine questions ask about cocaine and other drugs.

53. How old were you when you tried any form of cocaine, including powder, crack, or freebase, for the first time?

a.	I have never tried cocaine	94.6%
b.	Less than 9 years old	1.0%
c.	9 to 10 years old	0.6%
d.	11 or 12 years old	0.8%
e.	13 or 14 years old	1.1%
f.	15 or 16 years old	1.6%
g.	17 or more years old	0.4%



54. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

a. 0 times	95.4%
b. 1 or 2 times	1.7%
c. 3 to 9 times	0.9%
d. 10 to 19 times	0.6%
e. 20 to 39 times	0.2%
f. 40 or more times	1.0%

55. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?

a. 0 times	97.3%
b. 1 or 2 times	0.9%
c. 3 to 9 times	0.6%
d. 10 to 19 times	0.4%
e. 20 to 39 times	0.1%
f. 40 or more times	0.8%

56. During your life, how many times have you used the **crack** or **freebase** forms of cocaine?

a. 0 times	96.8%
b. 1 or 2 times	1.4%
c. 3 to 9 times	0.5%
d. 10 to 19 times	0.3%
e. 20 to 39 times	0.1%
f. 40 or more times	1.0%

57. During your life, how many times have you used any other type of illegal drug, such as LSD, PCP, ecstasy, mushrooms, speed, ice, heroin, or pills without a doctor's prescription?

a. 0 times	85.7%
b. 1 or 2 times	5.5%
c. 3 to 9 times	3.6%
d. 10 to 19 times	1.7%
e. 20 to 39 times	1.0%
f. 40 or more times	2.5%

58. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled other gases or sprays in order to get high?

a.	0 times	82.5%
b.	1 or 2 times	8.1%
c.	3 to 9 times	4.0%
d.	10 to 19 times	2.0%
e.	20 to 39 times	1.1%
f.	40 or more times	2.3%

59. During your life, how many times have you taken **steroid** pills or shots **without** a doctor's prescription?

a. 0 times	95.4%
b. 1 or 2 times	1.8%
c. 3 to 9 times	0.9%
d. 10 to 19 times	0.4%
e. 20 to 39 times	0.4%
f. 40 or more times	1.1%

60. During your life, have you ever injected (shot up) any illegal drug?

a.	Yes	3.3%
b.	No	96.7%

61. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

a. Yes	19.6%
b. No	80.4%

The next eight questions seek additional information about alcohol and other drugs.

62. How much pressure do you feel from your friends and schoolmates to use alcohol and other drugs?

a.	None	65.1%
b.	A little	30.1%
c.	A lot	4.8%



63. In the future, do you think that you will use alcohol or other drugs?

a.	Definitely not	25.3%
b.	Probably not	17.8%
c.	Probably will use alcohol,	
	but not other drugs	45.6%
d.	Probably will use drugs,	
	but not alcohol	0.9%
e	Probably will use both	
	alcohol and other drugs	6.3%
f.	Definitely will use both	
	alcohol and other drugs	4.2%

- 64. If you ever found yourself "hooked" on alcohol or other drugs, who would you be most likely to turn to for help? (Choose only one answer.)
 - a. Parent or other family member 39.7%
 b. Friends
 c. A teacher
 d. A school counselor
 e. A doctor
 f. A drug clinic
 g. A minister, priest, or rabbi
- 65. Does your school provide help for students who have problems because of their use of alcohol or other drugs?

a.	Yes		39.0%
b.	No		9. 6 %
c.	Not sure	don't know	51.4%

66. If you came home from a party and your parents found out that you had been using illegal drugs (other than alcohol and tobacco), how upset do you think they would be?

a.	Not at all upset	4.2%
b.	A little upset	6.5%
c.	Very upset	89.3%

67. How often do your parents ask where you are going or with whom you will be?

a.	Practically never	7.9%
b.	Some of the time	14.3%
c.	Most of the time	28.3%
d.	All of the time	49.5%

- 68. Have you ever had a course in school that helped you learn about alcohol and other drugs?
 - a. Yes, I've had a course that spent a lot of time on alcohol and other drugs 31.3%
 b. Yes, I've had a course that spent some time on alcohol and other drugs 57.3%
 c. No 11.4%
- 69. Does your school have clear rules about the use of alcohol and other drugs in school or on school property?

a.	Yes	83.2%
b.	No	5.7%
c.	Not sure, don't know	11.1%

The next two questions ask about AIDS/HIV education and information

70. Have you ever been taught about AIDS/HIV infection in school?

a.	Yes	84.1%
b.	No	11.4%
c.	Not sure	5.4%

71. Have you ever talked about AIDS/HIV infection with your parents or other adults in your family?

a.	Yes	58.4%
b.	No	36.2%
c.	Not sure	5.4%

The next nine questions ask about sexual behavior.

72. Have you ever had sexual intercourse?

a.	Yes	47.0%
b.	No	53.0%



73. How old were you when you had sexual intercourse for the first time?

a.	I have never had sexual	
	intercourse	52.9%
b.	Less than 12 years old	4.0%
c.	12 years old	3.3%
d.	13 years old	5.4%
e.	14 years old	9.6%
f.	15 years old	11.1%
g.	16 years old	9.4%
h.	17 or more years old	4.2%

74. During your life, with how many people have you had sexual intercourse?

a.	I have never had sexual	
	intercourse	53.1%
b.	1 person	18.9%
c.	2 people	7.5%
d.	3 people	6.2%
e.	4 people	3.8%
f.	5 people	2.4%
g.	6 or more people	8.2%

75. During the past 3 months, with how many people did you have sexual intercourse?

 a. I have never had sexual 	
intercourse	53.1%
b. I have had sexual inter-	
course, but not during	
the past 3 months	14.5%
c. 1 person	24.4%
d. 2 people	3.7%
e. 3 people	1.4%
f. 4 people	0.7%
g. 5 people	0.4%
h. 6 or more people	1.8%

- 76. Did you drink alcohol or use drugs before you had sexual intercourse the last time?
 - a. I have never had sexual intercourse 53.2%
 b. Yes 9.9%
 c. No 36.9%

77. The last time you had sexual intercourse, did you or your partner use a condom?

a.	I have never had sexual	
	intercourse	53.4%
b.	Yes	28.4%
c.	No	18.3%

78. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy? (Select only one response.)

a. I have never had sexual	
intercourse	53.75
b. No method was used to	
prevent pregnancy	7.1%
c. Birth control pills	8.7%
d. Condoms	23.8%
e. Withdrawal	5.2%
f. Some other method	0.9%
g. Not sure	0.9%

79. How many times have you been pregnant or gotten someone pregnant?

a. 0 times	93.3%
b. 1 time	3.6%
c. 2 or more times	1.5%
d. Not sure	1.6%

80. Have you ever been told by a doctor or nurse that you have a sexually transmitted disease such as genital herpes, genital warts, chlamydia, syphilis, gonorrhea, AIDS, or HIV infection?

a.	Yes	5.9%
b.	No	94.1%

The next four questions ask about body weight.

81. How do you think of yourself?

a.	Very underweight	4.5%
b.	Slightly underweight	15.9%
c.	About the right weight	44.0%
d.	Slightly overweight	30.0%
e.	Very overweight	5.5%

82. Which of the following are you trying to do?

a. Lose weight	43.6%
b. Gain weight	18.7%
c. Stay the same weight	18.9%
d. I am not trying to do	
anything about my weight	18.8%

83. During the past 7 days, which one of the following did you do to lose weight or to keep from gaining weight?

a.	I did not try to lose	
	weight or keep from	
	gaining weight	46.9%
b.	I dieted	9.2%
c.	I exercised	2 1.8%
d.	I exercised and dieted	17.5%
e.	I used some other method,	
	but I did not exercise or diet	4.6%

- 84. During the past 7 days, which one of the following did you do to lose weight or to keep from gaining weight?
 - a. I did not try to lose weight
 o keep from gaining weight
 56.3%
 b. I made myself vomit
 c. I took diet pills
 d. I made myself vomit and took
 diet pills
 1.1%
 e. I used some other method, but
 I did not vomit or take
 diet pills
 37.1%

The next seven questions ask about food you ate yesterday. Think about all meals and snacks you ate yesterday from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.

85. Yesterday, did you eat fruit?

a.	No	36.3%
b.	Yes, once only	35.0%
c.	Yes, twice or more	28.6%

86. Yesterday, did you drink fruit juice?

a. No	38.0%
b. Yes, once only	31.5%
c. Yes, twice or more	30.5%

87. Yesterday, did you eat green salad?

a. No	72.3%
b. Yes, once only	2 3.5%
c. Yes, twice or more	4.2%

88. Yesterday, did you eat **cooked** vegetables?

a. No	54.8%
b. Yes, once only	34.4%
c. Yes, twice or more	10.7%

89. Yesterday, did you eat hamburger, hot dogs, or sausage?

a. No	47.9%
b. Yes, once only	37.5%
c. Yes, twice or more	14.6%

90. Yesterday, did you eat french fries or potato chips?

a. No	47.3%
b. Yes, once only	39.1%
c. Yes, twice or more	13.5%

91. Yesterday, did you eat cookies, doughnuts, pie, or cake?

a.	No	35.0%
b.	Yes, once only	40.5%
c.	Yes, twice or more	24.6%

The next eight questions ask about physical activity.

92. On how many of the past 7 days did you exercise or participate in sports activities for at least 20 minutes that made you sweat and breathe hard, such as basketball, jogging, fast dancing, swimming laps, tennis, fast bicycling, or similar aerobic activities?

a. 0 days	14.6%
b. 1 day	9.6%
c. 2 days	11.5%
d. 3 days	13.5%
e. 4 days	. 10.0%
f. 5 days	13.9%
g. 6 days	7.9%
h. 7 days	18.9%



93. On how many of the past 7 days did you do stretching exercises such as toe touching, knee bending, or leg stretching?

a. 0 days	27.4%
b. 1 day	9.9%
c. 2 days	11.9%
d. 3 days	12.1%
e. 4 days	7.8%
f. 5 days	12.6%
g. 6 days	5.0%
h. 7 days	13.3%

94. On how many of the past 7 days did you do exercises to strengthen or tone your muscles, such as push-ups, situps, or weight lifting?

a. 0 days	29.3%
b. 1 day	11.3%
c. 2 days	13.3%
d. 3 days	12.9%
e. 4 days	8.6%
f. 5 days	11.1%
g. 6 days	3.0%
h. 7 days	10.5%

95. On how many of the past 7 days did you walk or bicycle for at least 30 minutes at a time? (Include walking or bicycling to or from school.)

a. 0 days	46.9%
•	- • • • • •
b. 1 day	12.6%
c. 2 days	10.4%
d. 3 days	7.4%
e. 4 days	5.0%
f. 5 days	6.1%
g. 6 days	1.9%
h. 7 days	9.7%

96. In an average week when you are in school, on how many days do you go to physical education (PE) classes?

a. 0 days	32.3%
b. 1 da y	2.5%
c. 2 days	12.2%
d. 3 days	20.7%
e. 4 days	1.3%
f. 5 days	31.0%

97. During an average physical education (PE) class, how many minutes do you spend actually exercising or playing sports?

a.	I do not take PE	26.1%
b.	Less than 10 minutes	5.4%
c.	10 to 20 minutes	13.9%
d.	21 to 30 minutes	26.7%
e.	More than 30 minutes	27.9%

98. During the past 12 months, on how many sports teams run by your school, did you play? (Do not include PE classes.)

a.	0 teams	44.3%
b.	1 team	24.0%
c.	2 teams	18.6%
d.	3 or more teams	13.2%

99. During the past 12 months, on how many sports teams run by organizations outside of your school, did you play?

a. 0 teams	57.9%
b. 1 team	25.1%
c. 2 teams	10.5%
d. 3 or more teams	6.5%



"Year 2000" Objectives and Rationale from the U.S. Centers for Disease Control

Intentional and Unintentional Injuries

Seat belt use

• Increase the use of occupant protection systems such as safety belts, inflatable safety restraints and child safety seats to at least 85 percent of motor vehicle occupants. Seat belt use is estimated to reduce motor vehicle fatalities by 40 to 50 percent and serious injuries by 45 to 55 percent (National Committee for Injury Prevention and Control, 1989). Increasing the use of automobile safety restraint systems to 85 percent could save an estimated 10,000 American lives per year (U.S. Department of Health and Human Services, 1990a).

Motorcycle and bicycle safety

• Increase the use of helmets to at least 80 percent of motorcyclists and at least 50 percent of bicyclists. Head injury is the leading cause of death in motorcycle and bicycle crashes (National Committee for Injury Prevention and Control, 1989). Unhelmeted motorcyclists are two times more likely to incur a fatal head injury and three times more likely to incur a nonfatal head injury than helmeted riders (National Highway Traffic Safety Administration, 1980). In addition, the risk of head injury for unhelmeted bicyclists is more than six and one-half times greater than for helmeted riders (Thompson, Rivara, and Thompson, 1989).

Motor vehicle safety

• Reduce deaths among youth aged 15 to 24 caused by motor vehicle crashes to no more than 33 per 100,000 people. Reduce deaths among people aged 15 to 24 caused by alcohol-related motor vehicle crashes to no more than 18 per 100,000. Motor vehicle crash injuries, more than half of which involve alcohol (U.S. Department of Health and Human Services, 1990b), are the leading cause of death among youth aged 15 to 24 in the United States (National Highway Traffic Safety Administration, 1988). Alcohol-related traffic crashes cause serious injury and permanent disability and rank as the leading cause of spinal cord injury among adolescents and young adults (National Highway Traffic Safety Administration, 1987).

Carrying of weapons

• Reduce by 20 percent the incidence of weapon carrying by adolescents aged 14 to 17. Approximately nine out of ten homicide victims in the Unites States are killed with a weapon such as a gun, knife, or club. Homicide is the second leading cause of death among all adolescents and young adults (National Center for Health Statistics, 1990a) and the leading killer of Black adolescents and young adults (U.S. Department of Health and Human Services, 1990b).



Physical fighting

• Reduce by 20 percent the incidence of physical fighting among adolescents ages 14 to 17. Fighting is the most important antecedent behavior for a great proportion of homicides among adolescents (U.S. Department of Health and Human Services, 1990a). The immediate accessibility of a firearm or other lethal weapon often is the factor that turns a violent altercation into a lethal event (Rivara, 1985). Unintentional firearm-related fatalities are a critical problem among children and young adults in the United States (Wood and Mercy, 1988).

Suicide

• Reduce by 15 percent the incidence of injurious suicide attempts among adolescents aged 14 to 19. Suicide is the third leading cause of death among youth aged 15 to 24 and the second leading cause of death among white males aged 15 to 24 (National Center for Health Statistics, 1990b). The suicide rate for persons aged 15 to 24 has tripled since 1950 (U.S. Department of Health and Human Services, 1990b).

Tobacco, Alcohol, and Other Drug Use

Tobacco use

• Increase by at least one year the average age of first use of cigarettes, alcohol, and marijuana by adolescents aged 12 to 17. Reduce the initiation of cigarette smoking by children and youth so that no more than 15 percent have become regular cigarette smokers by age 20. Tobacco use is the single most important preventable cause of death in the Unites States, accounting for one of every six deaths. Smoking is a major risk factor for heart disease; chronic bronchitis; emphysema; and cancers of the lung, larynx, pharynx, mouth, esophagus, pancreas, and bladder. If 29 percent of the 70 million children now living in the United States smoke cigarettes as adults, then at least five million of them will die of smoking-related diseases (Office on Smoking and Health, 1989).

Alcohol use

• Reduce the proportion of young people who have used alcohol in the past month to 12.6 percent of youth aged 12 to 17 and 29 percent among youth aged 18 to 20. Reduce the proportion of high school seniors and college students engaging in recent occasions of heavy drinking of alcoholic beverage to no more than 28 percent of high school seniors and 32 per cent of college students. Alcohol is a major factor in approximately half of all homicides, suicides, and motor vehicle crashes (Perrine, Peck, and Fell, 1988), which are the leading causes of death and disability among young people (U.S. Department of Health and Human Services, 1990b). Approximately 100,000 American deaths per year are attributable to misuse of alcohol (U.S. Department of Health and Human Services, 1990b).

Other drug use

• Reduce the proportion of young people who have used other drugs in the past month as follows: 3.2 percent of youth aged 12 to 17 and 7.8 percent of youth aged 18 to 20 (marijuana use); 0.6 percent of youth aged 12 to 17 and 2.3 percent of youth aged 18 to 20 (cocaine use). One in four American adolescents is estimated to be



at high risk for the consequences of alcohol and other drug problems (Dryfoos, 1987). Drug abuse is related to morbidity and mortality due to injury, early unwanted pregnancy, school failure, delinquency, and transmission of sexually transmitted diseases, including HIV infection (U.S. Department of Health and Human Services, 1990a).

Sexual Behaviors That Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancy

HIV/AIDS risk and prevention education

• Confine the prevalence of HIV infection to no more than 800 per 100,000 (adolescents). Acquired immunodeficiency syndrome (AIDS) is the only major disease in the United States for which mortality is increasing (U.S. Department of Health and Human Services, 1990b). AIDS is the seventh leading cause of years of potential life lost before age 65 in the United States (Centers for Disease Control, 1989) and is the seventh leading cause of death for youth aged 15 to 24 (National Center for Health Statistics, 1989).

Sexual behaviors

• Reduce the proportion of adolescents who have engaged in sexual intercourse to no more than 15 percent by age 15 and no more than 40 percent by age 17. Increase to at least 40 percent the proportion of ever sexually active adolescents aged 17 and younger who have abstained from sexual activity for the previous three months. Major risks of early sexual activity include unwanted pregnancy and sexually transmitted diseases (STDs), including HIV, as well as negative effects on social and psychological development. The number of sexual partners and age at first intercourse are associated with STDs. Alcohol and other drug use may serve as predisposing factors for initiation of sexual activity and unprotected sexual intercourse (Hofferth and Hayes, 1987).

Sexually transmitted diseases

• Increase to at least 60 percent the proportion of sexually active, unmarried young women age 15 to 19 who used a condom at last sexual intercourse. Increase to at least 75 percent the proportion of sexually active, unmarried young men age 15 to 19 who used a condom at last sexual intercourse. Reduce gonorrhea among adolescents age 15 to 19 to no more than 750 cases per 100,000 people. Every year 2.5 million U.S. teenagers are infected with an STD. This number represents approximately one out of every six sexually active teens and one-fifth of the national STD cases (U.S. Centers for Disease Control, 1989b). Of the 12 million new cases of STDs per year, 86 percent are among people age 15 to 29 (Division of Sexually transmitted Diseases, 1990). STDs may result in infertility, adverse effects on pregnancy outcome and maternal and child health, and facilitation of HIV transmission (U.S. Department of Health and Human Services, 1990b).

Unintended pregnancies

• Reduce pregnancies among girls aged 17 and younger to no more than 50 per 1,000 adolescents. Increase to at least 90 percent the proportion of sexually active, unmarried people age 19 and younger who use contraception, especially combined method contraception that effectively prevents pregnancy and provides barrier protection. More than one million teenage girls in the United States become



pregnant each year. Just over 400,000 teens have abortions, and nearly 470,000 give birth (Henshaw and Van Vort, 1989; Hofferth and Hayes, 1987). Teenagers account for one-third of all unintended pregnancies, with 75 percent of teen pregnancies occurring among adolescents who are not practicing contraception (Westoff, 1988). The United States leads all other Western developed countries in rates of adolescent pregnancy, abortion, and childbearing (Hofferth and Hayes, 1987).

Dietary Patterns

Perceptions of weight

• Reduce overweight to a prevalence of no more than 20 percent among people aged 20 and older and no more than 15 percent among adolescents ages 12 to 19. Increase to at least 50 percent the proportion of overweight people aged 12 and older who have adopted sound dietary practices combined with regular physical activity to obtain an appropriate body weight. Obesity and extreme obesity appear to be increasing by as much as 39 percent and 64 percent respectively among adolescents aged 12 to 17 (Gortmaker, Dietz, Sobol and Wehler, 1987). Obesity acquired during childhood or adolescence may persist into adulthood, increasing later risk for chronic conditions such as diabetes, heart disease, high blood pressure, stroke, some cancer, and gall bladder disease (Public Health Service, 1988). In addition, children and adolescents often experience social and psychological stress related to obesity (Rotatori and Fox, 1989). Overemphasis on thinness can contribute to eating disorders (U.S. Public Health Service, 1988).

Dietary fat intake

• Reduce dietary fat intake to an average of 30 percent of calories or less and average saturated fat intake to less than 10 percent of calories among people age two and older. Increase complex carbohydrate and fiber-containing foods in the diets of adults to five or more daily servings for vegetables (including legumes) and fruits and to six or more daily servings of grain products. Americans currently consume more than 36 percent of their total calories from fat. High fat diets, which are associated with increased risk of obesity, heart disease, some types of cancer, and other chronic conditions, often are consumed at the expense of food high in complex carbohydrates and dietary fiber, considered more conducive to health (U.S. Public Health Services, 1988). Because lifetime dietary patterns are established during youth, adolescents should be encouraged to choose nutritious foods and to develop healthy eating habits (Select Panel for the Promotion of Child Health, 1981).

Physical Activity

• Increase to at least 30 percent the proportion of people aged six and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day. Increase to at least 20 percent the proportion of people aged 18 and older and to at least 75 percent the proportion of children and adolescents aged 6 to 17 who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness three or more days per week for 20 or more minutes per occasion. Regular physical activity increases life expectancy (Paffenbarger, Hyde, Wing, and Hsieh, 1986). Additionally, regular physical activity can assist in the prevention and management of coronary heath diseases, hypertension, diabetes, osteoporosis, obesity, and mental health problems (Harris, Caspersen, DeFriese, and Estes, 1989). The quantity and quality of school physical

education programs have significant positive effects on the health-related fitness of children (U.S. Department of Health and Human Services, 1985 and 1987).

References

- Centers for Disease Control. (1989 a). Years of potential life lost before age 65: United States, 1987. Morbidity and Mortality Weekly Report, 38, 27-29.
- Centers for Disease Control (1989b). Annual Report. Atlanta, GA: Centers for Disease Control, Division of STD/HIV Prevention.
- Centers for Disease Control (1991, June). HIV/AIDS Surveillance. Atlanta, GA:Author.
- Division of Sexually Transmitted Diseases. (1990). Annual Report, 1989. Center for Prevention Services, Centers for Disease Control, U.S. Public Health Service.
- Dryfoos, J. G. (1987). Working Paper on Youth At Risk: One in Four in Jeopardy. Hastings on the Hudson, New York: Report submitted to the Carnegie Corporation.
- Gortmaker, S. L. Dietz, W. H., Sobol, A. M. & Whler, C.A. (1987). Increasing pediatric obesity in the United States. American Journal of Diseases of Children, 141, 535-540.
- Harris, S.S. Caspersen, C.J., DeFriese, G.H., & Estes, E.H. (1989). Physical activity counseling for healthy adults as a primary preventive intervention in the clinical setting. JAMA, 261, 3590-3598.
- Henshaw, S. K., & Van Vort, J. (1989, March/April). Research note: Teenage abortion, birth and pregnancy statistics. Family Planning Perspectives.
- Hofferth, S.L. & Hayes, C.D. (Eds.). (1987). Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing. Panel on Adolescent Pregnancy and Childbearing, Committee on Child Development Research and Public Policy, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academy Press.
- Johnston, L.D., O'Malley, P.M., & Bachman, J. G. (1989). Drug Use, Drinking, and Smoking: National Survey Results From High School, College, and Young Adult Populations, 1975-1988 (DHHS Publication No. ADM 89-1638). Rockville, MD: National Institute of Drug Abuse.
- National Center for Health Statistics. (1989). Advance report of final mortality statistics, 1987. Monthly Vital Statistics Report, 38 (5 Supplement). Hyattsville, MD: Public Health Service.
- National Center for Health Statistics. (1990a) Health United States, 1989 (DHHS Publication No. 90-1232). Hyattsville, MD: U.S. Department of Health and Human Services.
- National Center for Health Statistics. (1990b). Prevention Profile, Health, United States, 1989 (DHHS Publication No. 90-1232). Hyattsville, MD: U.S. Department of Health and Human Services.



- National Committee for Injury Prevention and Control. (1989) Injury prevention: Meeting the Challenge. Supplement to American Journal of Preventive Medicine, 5(3).
- National Highway Traffic Safety Administration. (1980). A Report to the Congress on the Effect of Motorcycle Helmet Use Law Repeal: A Case for Helmet Use. Washington, DC: Department of Transportation.
- National Highway Traffic Safety Administration. (1987). The Economic Cost to Society of Motor Vehicle Accidents (Technical Report DOT HS 809-195). Washington, DC: U.S. Department of Transportation.
- National Highway Traffic Safety Administration. (1988). Fatal Accident Reporting System, 1987. Washington DC: Department of Transportation.
- Office of Smoking and Health. (1989). Reducing the Health Consequences of Smoking: 25 Years of Program. A report of the Surgeon General (DHHS Publication No. CDC 89-8411). Washington, DC: U.S. Department of Health and Human Services.
- Paffenbarger, R.S., Hyde, R.T., Wing, A.L., & Hsieh, C.C. (1986). Physical activity, all cause mortality, and longevity of college alumni. New England Journal of Medicine, 314, 605-613.
- Perrine, M., Peck, R., & Fell, J. (1988). Epidemiological perspectives on drunk driving. In Surgeon General's Workshop on Drunk Driving: Background Papers. Washington DC: U.S. Department of Health and Human Services.
- Public Health Service. (1986). The Health Consequences of Using Smokeless Tobacco: A Report of the Advisory Committee to the Surgeon General (NIH Publication No. 86-2874). Bethesda, MD: U.S. Department of Health and Human Services.
- · Public Health Service. (1988). The Surgeon General's Report on Nutrition and Health (DHHS Publication No. 88-50210). Washington, DC: U.S. Department of Health and Human Services.
 - Rivara, F.P. (1985). Traumatic deaths of children in the United States: Currently available prevention strategies. Pediatrics, 75(3), 456-462.
 - Rotatori, A.F., & Fox, R.A. (1989). Obesity in Children and Youth: Measurement, Characteristics, Causes, and Treatment. Springfield, IL: Charles C. Thomas.
 - Select Panel for the Promotion of Child Health. (1981). Report to the United States Conference and the Secretary of Health and Human Services: Vol. 1. Major Findings and Recommendations & Vc' IV. Background Papers (DHHS Publication No. PHS 79-55071). Washington, DC: U.S. Government Printing Office.
 - Thompson, R.S., Rivara, F.P.O., & Thompson, D.C. (1989). A case-control study of the effectiveness of bicycle safety helmets. New England Journal of Medicine, 320(21), 1364-1366.
 - U.S. Department of Health and Human Services. (1985). National children and youth fitness study. Journal of Physical Education, Recreation, and Dance, 56, 44-90.
 - U.S. Department of Health and Human Services. (1987). National children and youth fitness study II. Journal of Physical Education, Recreation, and Dance, 58, 50-96.



- U.S. Department of Health and Human Services. (1990a). Healthy People: National Health Promotion and Disease Prevention Objectives. U.S. Department of Health and Human Services, Public Health Service, Conference Edition, September.
- U.S. Department of Health and Human Services, (1990b). Prevention '89/90: Federal Programs and Progress. Washington, DC: U.S. Government Printing Office.
- Westoff, C.F. (1988). Contraceptive paths toward reduction of unintended pregnancy and abortion. Family Planning Perspectives, 20(1), 413.
- Wood, N.P., Jr., & Mercy, J.A. (1988). Unintentional firearm related fatalities, 1970-1984. Morbidity and Mortality Weekly Report, 37(SSI), 47-52.



56